



Stanford eCorner

Product Development Process: Observation

David Kelley, *IDEO*

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Video URL: <http://ecorner.stanford.edu/videos/684/Product-Development-Process-Observation>

Kelley talks about how the observation phase is the most overlooked part of the development process. Kelley hires social scientists to watch people complete tasks instead of asking them usability questions. He prefers to see them as customers instead of users and strongly believes that customer satisfaction comes with understanding their values. He gives examples of how his team will observe a customer in their usual environment instead of inviting them into a sterile lab for product testing. The case studies he presents include a television remote control.



Transcript

And I just thought I'd talk very quickly about three of the kind of highlights about what's important in the product development process. The first one majorly overlooked is the observation phase. In general, what is happening today our people are looking at what people are saying. They ask them in focus groups. They do monitor studies and they talk to them. But the truth is that people can't tell you what their latent needs are. You have to really get out there with your social scientists. We hire as many social scientists as anything else these days, anthropologists, cognitive psychologists. Go out and actually watch people and find out what it is they have a problem doing. Just recently, watching people pump gas.

You know, people who dump gasoline on their clothing, the percentage is incredibly high. It seems like there's a problem there. But you ask them, "Do you ever have a problem pumping gas?" They say, "No." And so by observing, what we're trying to do is really looking at what they're saying. And now, that's the kind of thinking of them as a customer. If you think of them as a user, you watch what they do. But what we really try to do is to get over here and understand what they think and what they feel so that we can know what they value as humans, what they value as a culture. And then you really can do something that satisfies them. In general, I grew up, being an electrical engineer and studying technology, is great. But what I think I'm finding is that in studying technology, I study things like microprocessors with numbers like 4004, 8008. And those are not very useful right now, so technology kind of fades on you.

But studying people, understanding what people value in age groups in certain cultures pays back over and over and over again. So we spend a lot of time now observing people and trying to understand them. By the way, engineers don't like doing this, like it's too messy. If you ask them, they'll say they have heard the voice of a customer. But that usually means they have talked to a few on the telephone. They haven't been in the house. They haven't had a lot of time with them. They don't have empathy for the user's needs and wants. So it's completely different if you're designing a remote control. It's completely different to have a TV in a focus group room, bringing somebody in and have them try your remote control in the focus group room, completely different.

If you go to their house and you watch them using a TV remote control, there's like dogs running around, they are lying on their backs on the sofa with popcorn. I mean it's completely different. You certainly wouldn't design a black remote control with black buttons in the dark, if you were actually there and seeing what they have trouble with. Toothpaste, we have tons of hours watching people brush with their toothpaste. Yes, we are in people's bathrooms watching them brush with toothpaste. And in the case of Oral-B, in designing for kids under five, trying to get kids under five to want to brush is not intuitive. We would have

thought that you design a smaller toothbrush. The truth is you design a bigger toothbrush. They palm the toothbrush. So the toothbrush needs to be thicker, not thinner.

Also, we put this little dot so you can try to get them to put their thumb up. But it's not intuitive. Again, you wouldn't get this from any other way other than observing them. In the case of the Polaroid i-Zone camera, this is a project we did with Polaroid. It's the best-selling camera in the US right now. And when watching people, it turned out that with Polaroids, people are not really excited about the image quality. But they're really excited about the play. It's all about playing with the camera. Once you realize when you watch them that they're not actually paying much attention with the image quality. They are not talking about 330 dots per inch.

They're not talking about anything. The megapixels, they're not talking about that. They're having a good time playing with them, sticking them up and so this camera, which if some of you know -- have you seen this camera? It's a little camera. It's got sticky film in it. They like putting them on the ceiling and putting them on the foosball. Players are wearing them on their backpacks and so forth. So it's all about play and so it hit a chord with the age group that we were after. And then there's more serious things like the defibrillator we worked on with Heartstream. They say that when these things are rolled out, 100,000 lives a year will be saved. This is a portable defibrillator and the trick here was trying to actually watch people try to use it after we designed prototypes.

You go on this emergency situations and this person is dying. You have six minutes to administer this kind of shock to their electrical system to get their heart going again. And so the user interface has got to be really straightforward. This one has -- this is one of the designers lying and playacting. We spent a lot of time in hospitals like pretending. About 40% of our business is medical. We spend a lot of time in hospitals pretending we have broken legs and things like that, trying to actually find out how you go through the hospital. But anyway, so again this is really just about realizing that you have to go through the messy part of really watching users in their environment.